COMPACTION TEST - DRIVE CYLINDER METHOD

Landowner _____ County _____ Practice _____

By _____ Title _____ Date _____

Referenced Proctor Curve _____

Maximum Dry Density (γ_d max) _____ pcf Optimum Moisture _____% Specific Gravity (Gs) _____ g/cc

Test No.	Location	Elevation	Wc (g)	Wcs (g)	Wm (g)	Wm (lb)	SP (%)	w (%)	Wd (lbs)	γ_d (pcf)	Compaction (%)	w_{sat} (%)	Saturation (%)	Density passes (yes/no)	Moisture passes (yes/no)

Wc = Weight of Cylinder in grams
Wcs = Weight of Cylinder and Soil in grams
Wm(g) = (Wcs - Wc) = moist weight of soil in grams
Wm (lbs) = Wm(g) X 0.0022 = moist weight of soil in pounds
SP = Speedy Moisture Meter Gage Reading
w = Sample Moisture Content (from speedy conversion chart)

Wd = Dry Weight of Sample = Wm/ (1+w)
γ_d = Dry Unit Weight of Sample = Wd/volume of cylinder
(Volume of cylinder usually 0.033 ft^3)
Compaction = (γ_d / γ_d max) X 100
w_{sat} = [(γ_w / γ_d) - (1/Gs)] x 100 NOTE: (γ_w = 62.4 lb/ft^3)
Saturation = (w/w_{sat}) x 100